



31st PIANC CONGRESS Estoril – May 2006

Working Group n° 31

Mission, Organization and Management of River Ports



Organisation et Gestion des Ports Fluviaux

- ⇒ River ports : a wide range of port structures, in response to a great variety of contexts
- ⇒ Drawing up an analytical table of port structures (responses to different contexts) (analytical parameters)
- ⇒ Defining the efficiency criteria of these port structures
- Diagnosis of the strengths and weaknesses of these port structures – Force for change – Threats and opportunities
- ⇒ Working group n° 31 : Schedule



Organisation et Gestion des Ports Fluviaux

⇒ River ports : A wide range of port structures and contexts

- A waterside factory which looks after its own supplies and shipments from its own wharves.
- A quarry operator who manages their own shipments by waterway.
- A private port operator who develops their logistics platform next to a river.
- A maritime or river shipowner who develops one or more inland terminals.



Organisation et Gestion des Ports Fluviaux

⇒ River ports: a wide range of port structures and contexts.

- ♦ A local authority which develops their logistics area next to a river in order to boost employment and tax resources.
- A State which develops a port, by controlling land use, in order to safeguard the port capacity from local demand for land.
- A sea port which sets up inland ports.
- A rail operator in charge of a multimodal hub.



Organisation et Gestion des Ports Fluviaux

⇒ Drawing up an analytical table of port structures (responses to different contexts).

Analytical parameters

- ♦ In terms of land-use control.
- In terms of the relative importance of the public and private sectors.
- In terms of operational control (equipment,...).
- In terms of the role of the shippers/shipowners/forwarding agents, ...
- ♦ Etc...



Organisation et Gestion des Ports Fluviaux

⇒ Defining the efficiency criteria of these responses.

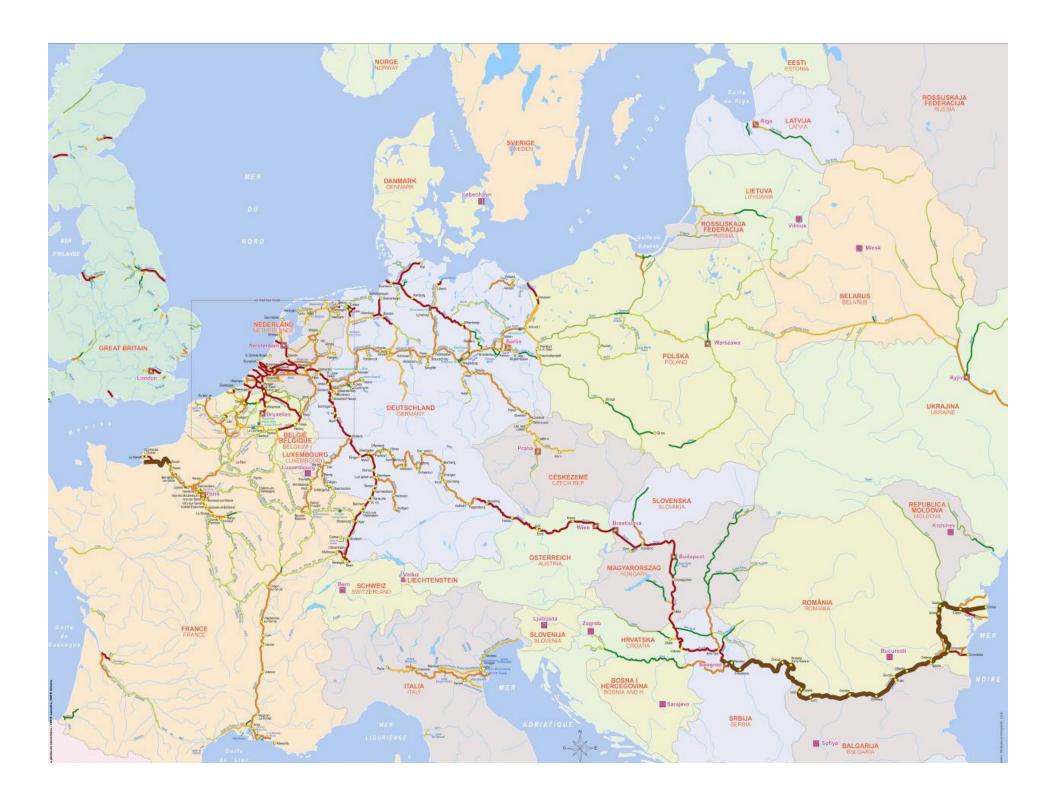
- Cost control of port operations.
- Return on invested capital.
- Logistics market share, development of activity.
- Sustainable development.
- ♦ Etc...



Organisation et Gestion des Ports Fluviaux

- ⇒ Diagnosis of the strengths and weaknesses of these port structures.
 - For 12 à 15 representative examples, cross-tabulation of findings on efficiency compared with the analytical parameters defined.
 - The taking into consideration of forces for change (capital-intensive, technological, etc...).
 - Analyses of threats and opportunities arising from the different types of structures.
 - Future responses.







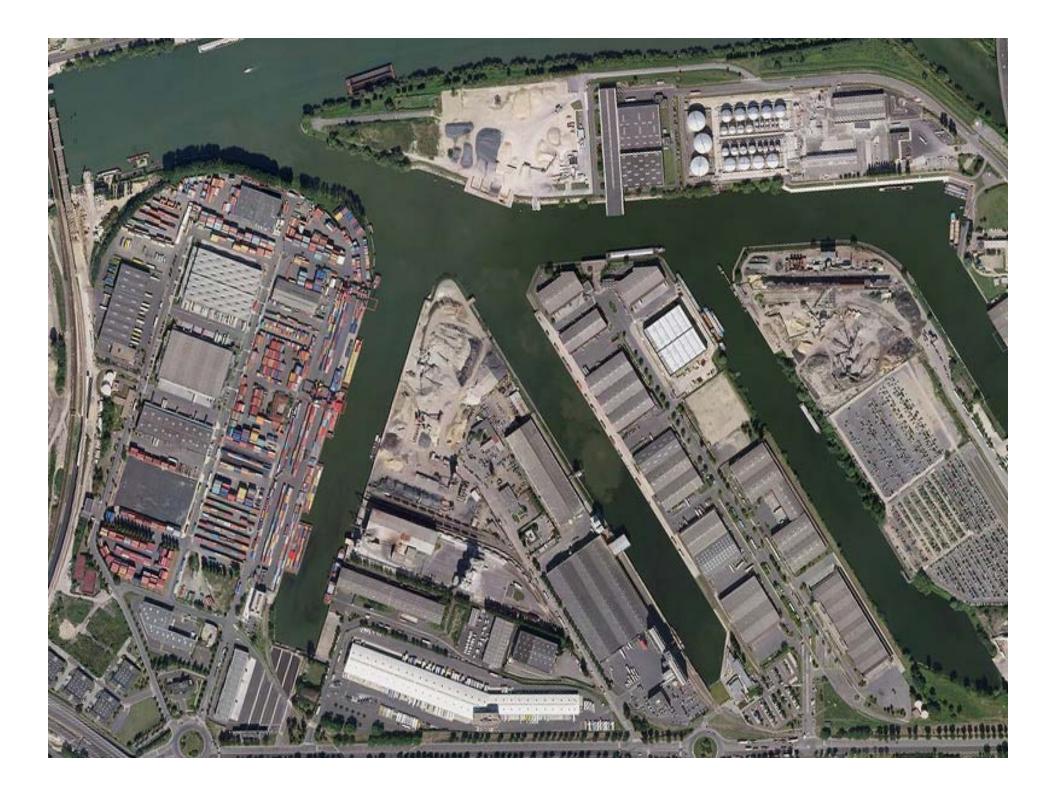
PARIS - FRANCE

THE SEINE

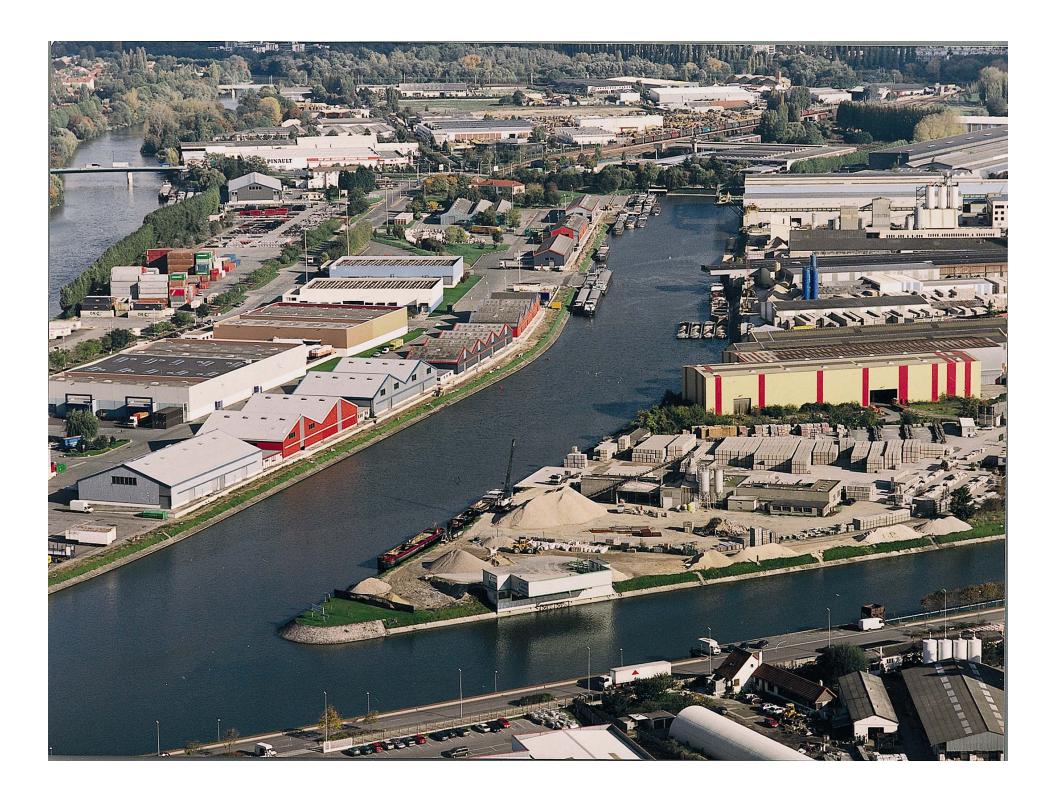
The second biggest inland port in Europe.

- Approx. 50 million TONS Transshipped in public and private ports (50 % - 50 %) (20 million TONS via barges).
- 70 ports (3 major platforms, as well as many ports within the city)
- Paris is also the world's largest inland port for passengers :
- 7 million p.a.
- * 300 000 physical movements of containers p.a.
- · Port of Paris PME (Port Management Establishment):
 - * Shareholder: French State
 - * Revenue € 70 m
 - * 200 employees
 - * Land area 1000 hectares















DUISBURG - GERMANY

THE RHINE

- «The world's biggest inland port ».
- Approx. 100 million TONS Transshipped in public and private port(50 % 50 %) (50 million TONS via barges).
- 300 container train links per week, especially to and from the North Sea Ports.
- 1.3 million physical movements of containers p.a.
- Port of Duisbourg (PME):
 - * Shareholder (1/3 each) Federal Republic, State of North Rhine-Wesphalia and city of Duisbourg
 - * Revenue € 120 m
 - * 500 employees
 - * Land area 1350 hectares

 - * Facilities: 4 container terminals
 - 5 coal muloading terminals
 - 8 covered loading / dischanging points
 - 5 Steel Service Centers
 - 2 Roll-on / Roll-offs

The Port of Duisburg



The Figures tell its own story...

- The world's biggest inland port:
 - Approx. 100 million tonnes are transshipped in the public ports and the 7 private ports p.a.
- Most important hinterland hub for the North Sea Ports:
 - Network of over 300 combined transportation train links per week
- The world's largest inland container port:
 - 787,000 TEU transshiped in 2006 equivalent to 1.3 million moves (sea ports' standard)
- One of the leading logistics locations in Europe:
 - 50 new settlements within the last seven years



Logistics Turntable duisport



- 3 Logistics Centers
 - 1.2 million sq.m. roofed storage area doubled within the last six years
- 4 Container Terminals:
 - ▶ Capacity: 1.0 million TEU (2010: 2.0 million TEU)
- Distribution to Central European markets by major German and non-German logistics service providers, e.g.:
 - Schenker (DE)
- ▶ Kühne+Nagel (CH)
- NYK Logistics (JP)
- DHL (DE)
- Geodis (FR)
- ▶ Gökbora (TR)
- ▶ Hellmann (DE)
- Gefco (FR)
- Seacon (NL)
- Vos Logistics (NL)
- Wincanton (GB)
- and others
- > Generation of cargo flows and added value

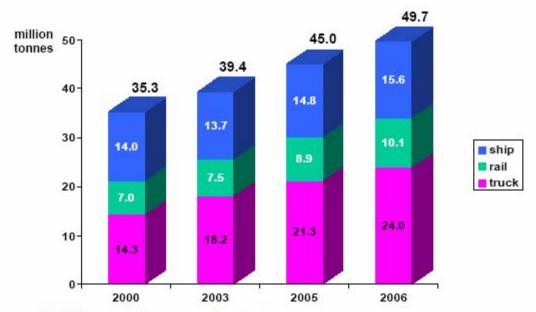




Development of Transshipment Modal Split



Total transshipment of the public ports (duisport) and 7 private ports:
 Approx. 100 million tonnes by ship, rail and truck; thereof duisport: 50 Mio. tonnes



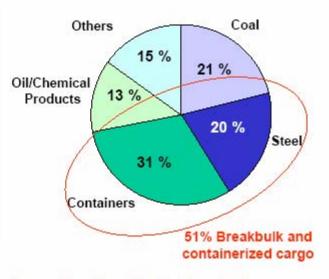
> Rail is gaining market shares

Transshipment 2006



Total transshipment of the public ports (duisport) and 7 private ports:
 Approx. 100 million tonnes p.a.

	2005	2006
Ship cargo	14.8	15.6
Rail cargo	8.9	10.1
Intermediate result	23.7	25.7
Truck cargo	21.3	24.0
Truck cargo Total cargo	21.3 45.0	24



Major hub for containers, steel and coal in the hinterland of the sea ports

Development of Container Transshipment





> duisport bundles and sorts cargo streams for the sea ports and serves as gateway to the European hinterland

Short Sea Traffic



- Scheduled Short Sea shipping links mainly to the United Kingdom, Scandinavia and the Iberian peninsula
- Some 2 million tonnes of cargo loaded and unloaded by approx. 2,000 sea-going barges in Duisburg each year
- 10 Short Sea shipping companies operate container line services from Duisburg
- 50,000 TEU p.a. by direct container line service to the United Kingdom (London area)
- "Top 5"-Relations:
 - UK (Tilbury, Goole)
 - Norway (Bergen)
 - Spain (Barcelona)
 - Denmark (Kolding)
 - Lithuania (Klaipeda)



Status: May 2007



BASEL - SWISS

THE RHINE

- Approx. 15 million Tons transshipped p.a. (7 million Tons via barges).
- 70 per cent of the river tonnage to or from trains.
- Port platforms and terminals close to or within urban zones.
- Unique Swiss trimodal platform.
- Including ports of «WEIL AM RHEIN» (Germany) and Mulhouse Ottsmarshein (France) the river traffic totals 13 million Tons.
- 88 000 containers transshipped from river.
- Port of Bassel (PME) :
 - * Shareholder: 2 cantons of Basel
 - * Land area 120 hectares
 - * Board team: 5 The president come from financial sector
 - * Important Equipment for rail transport



VIENNA - AUSTRIA

THE DANUBE

- Approx. 11 million TONS transshipped in public port of Vienna (1 million TONS via barges).
- 200 000 physical movements of containers p.a.
- Warehouse capacity 7 hectares
- Port of Vienna (PME):
 - * Shareholder city of Vienna.
 - * Land area managed: 350 hectares.
 - * Port of Vienna operates Solely container car terminal (car terminal equipped by a silo).
 - * 200 employees.



KREMS - AUTRIA

THE DANUBE

- Approx. 2 million TONS transshipped (0,4 million TONS via barges).
- Port activities in the majority managed directly by PME which has rented the land from 1935 until 2062.
- Cranes, warehouses, railroads, container terminal.
- Port of Krems (PME):
 - * Shareholder: private.
 - * Land area managed: 25 hectares.



OTHER PORTS TO BE STUDIED

Pittsburg (USA)

Memphis (USA)

Luxembourg (Luxembourg)

Rotterdam (Netherlands)

Strasbourg (France)

Londres (UK)

Belgrade (Serbia)

Liège (Belgium)



1- LAND OWNERSHIP

PARIS (France) } Globally speaking, 50 % of waterway traffic DUISBURG (Germany) } comes from private land, 50 % from public land.

VIENNA (Austria) } KREMS (Austria) } Public ownership (municipalities of Vienna, Krems BASEL (Swiss) } and Bassel)

A European historical tendency towards public (state or cities) ownership Of the land.



2- STATUS OF THE PME (Port Managing Establishment)

- Ports managed through mix of public and private (Krems an exception: managed privately).
- Private + public permits variety of business approaches.
- Basel previously run directly by government ministry from 2008 will be run by state company (on - going reforms).
- · Duisbourg, Vienna and Paris managed by state companies.
- Paris managed with important influence of the national state (French), others with mainly local influence.



3- LAND USE

- 3 Types of use for land plots :
 - A) Company for river-handling of cargo belonging to other companies.
 - B) Company for river-handling of its own-cargo.
 - C) Company for other logistic activities than barges (truck to truck or truck to train).
- The more the port is mainly used by type A, the more global it is as a River Transit Port (including a large hinterland).
- The more the port is mainly used by type B, the more connected it is to the local community.
- The more the port is mainly used by type C, the more it is a logistic platform without important link with the river.
- Within this definition, Basel is typically categorie A, Duisbourg and Paris category B.



4 -REAL ESTATE

- The five ports of Duisburg, Paris, Basel, Vienna and Krems developped capacity of warehousing.
- Ports of Duisburg and Paris offer more than 1 million Sq. m. each; 40 % of there belongs to the PME in Paris and 20 % in Duisburg.
- PME of Vienna solely operates its warehousing (70.000 Sq. m.) and is owner and directly operates its car terminal.



5- INFRASTRUCTURE OWNERSHIP

- In general, in the public part of the ports, infrastructures belongs to PME (rail, roads, quays, platforms)
- Exception = platforms especially in Paris, Duisburg, Basel belong to the leasee.
- Railroads belongs to national operator, PME and leasee

Duisburg example:

DB DUISPORT LEASEE

• Past 2009, this will be the case for Paris.



6 - SUPERSTRUCTURE OWNERSHIP

6.1 - CONTAINER TERMINALS

• DUISBURG

- 4 Terminals.
- 1 Terminal belongs to « PME » and is leased to and operator.
- 3 Terminals belong to inland and maritim handling operators.
- 1 (future) terminal will belong to a maritim ship owner and a sea-port handling operator.

+ PARIS

- 3 Terminals.
- 2 Terminals belong partly to PME.
- 1 Terminal belongs to a sea-port handling operator and a river transport company.

· BASEL

The terminals belong to international inland logistic operators.

VIENNA and KREMS The terminals belong to the PME.



6 - SUPERSTRUCTURE OWNERSHIP 6.2 - OTHER TERMINALS

- DUISBURG Many terminals are leased to a lot of logistic companies (steel, heavy parcels, coal, diverse goods, etc...).
- It is also the case in Basel and Paris, but for some terminals.
- In Vienna and Krems, the terminals are belonging to PME and operated by itself.



7 - LAND LEASES

- Who, globally, rent the land managed by the PME?
 (Shippers, River operators, general international logistic operators, local specific operators).
- Duisburg: 50 % Tradition Industries, present at the origin of the port, basis of cargoes transshipped and carried.
 50 % International logistic operators, also present in the seaports and overseas in the world.
- Basel: Mainly international logistic and transit companies.
- Paris: Building sector, waste industry, steel industry etc... Leisure and passengers transport by river logistic companies.
- Vienna and Krems: Diverse logistic companies.



8 - RAIL TRANSPORT

- Rail transport in Europe is changing: From a system of subsidied national monopolies towards a competition between international private operators.
- Duisburg increases its role of rail hub in Europe: already 12 daily container shuttles by rail between Duisburg and 8 european sea-ports.
 The PME of Duisburg is largely involved in this development, being even shareholders of the local shuttle company. More than 10 rail transport companies already operates in Duisburg.
- Basel: PME operates the railroads of the Port. As a result of strategy of Swiss State, 70 % of river tonnages go to or from rail.
- In Paris, the opening of competition between train operators is recent, and give an hope of a futur increase of traffic.

9 - KEY FACTORS FOR SUCCESS

- State control of the land to keep its use for general interest?
- More private influence for a better management?
- A Port Management Establishment more powerful, a guarantee of coherence ?
- Ability to attract many logistic companies, even if it reduces the influence of the PME?
- Promote long term leasing of the land by industries or keep capability for frequent turnover of the use of it to be able to offer space for new customers?
- Etc...